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Lee Delson Wilhelm

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EXAMINER

AFZALI, SARANG

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* LEE DELSON WILHELM

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Appeal 2009-004462  
Application 10/748,650  
Technology Center 3700

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Decided: November 13, 2009

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Before WILLIAM F. PATE, III, STEFAN STAICOVICI, and  
FRED A. SILVERBERG, *Administrative Patent Judges*.

SILVERBERG, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Lee Delson Wilhelm (Appellant) seeks our review under 35 U.S.C. § 134 of the final rejection of claims 1-16 and 20. We have jurisdiction under 35 U.S.C. § 6(b) (2002).

## SUMMARY OF DECISION

We REVERSE.

## THE INVENTION

The Appellant's claimed invention is directed to an embossing element (Spec. 2:2-16).

Claim 1, reproduced below, is representative of the subject matter on appeal.

1. An apparatus comprising:  
a surface containing at least one elongated  
curvilinear embossing element having a length of  
about 0.06 inch or greater and a top comprising a  
flat surface having a width;  
the embossing element having a first sidewall  
extending from a base to the top having a first  
sidewall angle, said first sidewall having a length  
perpendicular to the width of the top surface, and a  
second sidewall opposing the first sidewall, the  
second sidewall extending from the base to the top  
and having a second sidewall angle, said second  
sidewall having a length perpendicular to the width  
of the top surface; and  
wherein the first sidewall angle is different than  
the second sidewall angle.

## THE REJECTIONS

The Examiner relies upon the following as evidence of  
unpatentability:

Makoui	US 2002/0007749 A1	Jan. 24, 2002
Boegli	US 2004/0109911 A1	Jun. 10, 2004

The following rejections by the Examiner are before us for review:

1. Claims 1-7, 9, 10, 12, 13, 15, 16 and 20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Boegli.
2. Claims 8, 11 and 14 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Boegli in view of Makoui.

### ISSUE

The issue before us is whether the Examiner erred in finding that Boegli describes an embossing element including a first sidewall having a first sidewall angle and a second sidewall having a second sidewall angle, wherein the first sidewall angle is different from the second sidewall angle as called for in claims 1 and 2 (App. Br. 4, 5).

### ANALYSIS

Appellant contends that since an unexpected result was attained by providing sidewalls with differing sidewall angles, a person having ordinary skill in the art would not find it obvious to provide Boegli with differing sidewall angles as called for in independent claims 1 and 2 (App. Br. 4, 5).

The Examiner found that Boegli describes (1) that the embossing roll's tooth profile can be modified into a variety of configurations resulting in any desired embossed pattern that would be viewed differently under certain conditions (p. 2, ¶ [0035]) (Ans. 4); (2) that through variations of the teeth 8, e.g., by modifications of the height, of the flanks, or the edges of the teeth, desired embossed patterns may be produced (p. 2, ¶ [0035], ll. 6-12) (Ans. 7); and (3) that the design of the individual teeth may differ from the remaining elements (p. 2, ¶ [0035], ll. 16-20) (Ans. 7). The Examiner

further found that Boegli's tooth profile can be modified into a variety of configurations, e.g., having different sidewall angles, resulting in any desired embossed pattern (Ans. 5). The Examiner concluded that it would have been a matter of design choice to a person having ordinary skill in the art to provide Boegli with sidewall angles as called for in claims 1 and 2 (Ans. 5).

Boegli describes a first embossing roll 2 comprising a number of teeth 8 designed in the form of truncated pyramids (p. 2, ¶ [0033]). Boegli further describes on page 2, paragraph [0035], that patterns may be produced by, *inter alia*, (1) removing or shortening the teeth 8 on the embossing roll 2, and (2) modifying the height of the flanks or edges of the teeth 8. Boegli further describes that "the design of individual teeth . . . may differ from that of the remaining elements." (p. 2, ¶ [0035], lines 17-20).

Boegli's description that the design of individual teeth may differ from that of the remaining elements (p. 2, ¶ [0035], lines 17-20) must be read in light of Boegli's entire description. Boegli describes removing or modifying the height of the teeth (p. 2, ¶ [0035]), but does not specifically describe (1) modifying the shape of the teeth 8, or (2) that the sidewall angles of the teeth 8 vary. Therefore, we interpret Boegli's description that the design of individual teeth may differ from that of the remaining elements (p. 2, ¶ [0035], lines 17-20) to mean that the teeth 8 vary in size from each other, but do not vary in shape.

Accordingly, we find that the Examiner was in error when he found that Boegli's tooth profile can be modified into a variety of configurations, e.g., having different sidewall angles (Ans. 5).

Appellant's Specification describes that larger sidewall angles are easier to engrave, and smaller sidewall angles can provide improved embossing clarity (Spec. 6:24-26). Appellant's Specification further describes that providing a first sidewall angle 45 greater than a second sidewall angle 47 enables a gap 48 at the top of an embossing element 36 to be smaller than was previously possible (Spec. 8:1-12, fig. 3). Therefore, Appellant's Specification provides both a rationale for varying the sidewall angles, and a result not previously possible that is attained by varying the sidewall angles.

Accordingly, we find that the Examiner was in error when he concluded that it would have been a matter of design choice to a person having ordinary skill in the art to provide Boegli with sidewall angles as called for in claims 1 and 2 (Ans. 5). *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007) (holding that rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness).

We thus conclude that the Examiner erred in rejecting claims 1 and 2 as being unpatentable over Boegli. For the same reasons, the Examiner erred in rejecting claims 3-7, 9, 10, 12, 13, 15, 16 and 20, which respectively depend from claims 1 and 2, as being unpatentable over Boegli.

The Examiner has not relied on Makoui for any teaching that would remedy the deficiency in Boegli (Ans. 5-6). We thus conclude that the Examiner also erred in rejecting claims 8, 11 and 14 over Boegli in view of Makoui.

### CONCLUSION OF LAW

Appellant has established that the Examiner erred in finding that Boegli describes an embossing element including a first sidewall having a first sidewall angle and a second sidewall having a second sidewall angle, wherein the first sidewall angle is different from the second sidewall angle as called for in claims 1 and 2.

### DECISION

The decision of the Examiner to reject claims 1-16 and 20 is reversed.

REVERSED

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